Dear FMG, ANZ Team,

Based on our discussions, please find below an offer for the following customized ZEN Core Analysis workflow for petrography samples.

The total price for the module is 5,000 Euros.

Please don’t hesitate to contact us in case of any questions.

Best Regards,

Dr. Manoj Mathew

# Offer for custom solutions

**Overview**

Fortescue Metals Group, Australia is interested in acquiring microscopy images to inspect and analyze petrography samples using Zeiss Axioscan 7 Geo which is a slide-scanner with automated petrographic module for digitization, quantification, and collaboration. The petrography sample images are acquired using the ZEN Blue software associated with the microscope. The customer needs to analyze the acquired images to detect multiple phases w.r.t size of individual particles and area percentage of each of these phases. Further, they are also interested to compute grain-size parameters from the acquired sample images. These additional processing modules are already pre-built in the ZEN Core software. We offer a workflow by combining the ZEN Blue functionalities with that of ZEN Core.

**Description of Software Workflow:**

**Software Workflow [customized ZEN Core Analysis workflow for petrography samples]**

The offered workflow comprises of 2 parts

1. ZEN Blue software
2. Performs image acquisition
3. Down sample the sample images before Intellesis training (if required)
4. Creates trained segmentation model using Intellesis on sample acquired images
5. Transfer the trained model to ZEN Core for analysis
6. Image Analysis in ZEN Core software
   1. Multiphase parameters like area histogram and area percentage of each phase
   2. Grain-size parameters (grain-size, area) and area percentage of interested grain phase
   3. Segmentation of acquired image to be done in Intellesis once to generate binary mask
   4. Multiphase and Grain-size analysis performed on the binary mask

The Zen Blue software along with offered custom solution will perform the following:

1. Acquire petrology sample images
2. Create Intellesis-based machine learning model for segmentation with pre-acquired images
3. Down sampling of training images (if needed) before Intellesis training with a single click custom solution
4. Automatically exports the trained models to ZEN Core with a single click custom solution

The Zen Core custom workflow will perform the following:

1. Load the multiple acquired images from ZEN Blue for analysis
2. Perform segmentation using Intellesis model (from ZEN Blue) to generate a binary mask.
3. Perform multiphase analysis and compute the area percentage of each phase.
4. Prompt the user to select the desired phase for Grain-size analysis
5. Perform grain-size analysis on the selected phase to obtain grain parameters like grain-size, area etc.

**Pricing Information**

Estimated delivery time is 3 months from the placement of the purchase order:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sl. No: | Description | Catalog Number | Unit Price (Euro) | Unit Nos |  | Total Price (Euros) |
| 1 | Customized ZEN workflow with ZEN Blue in acquisition mode and ZEN Core in analyze mode for petrology samples. | 410190-0105-005 | 5000 | 1 |  | **5,000** |
|  | Total |  |  |  |  | **5,000** |

This offer is valid until the xxxxx.

We hope this offer corresponds to your requirements.

Carl Zeiss Microscopy GmbH